AUTODESK® PRODUCT DESIGN & MANUFACTURING COLLECTION

Everything your team needs to design and make great products.

Included Products	Inventor Professional	Product Design Suite	Collection
Inventor Professional *Professional-grade 3D mechanical design, documentation, and simulation.*	✓	✓	✓
Autodesk Nastran In-CAD *CAD-integrated FEA tools for engineers and analysts, powered by the Autodesk Nastran solver.*	-	-	✓
HSM *Integrated 2.5- to 5-axis CAM programming for Inventor and SOLIDWORKS.*	-	-	✓
Fusion 360 *3D CAD, CAM, and simulation in a single cloud-based platform on a Mac or PC.*	-	✓	✓
AutoCAD *Work with TrustedDWG™ technology for 2D and 3D design, and collaborate across desktop, cloud, and mobile.*	-	✓	✓
AutoCAD Mechanical *All the functionality of AutoCAD, plus comprehensive libraries of mechanical parts and design tools.*	-	✓	✓
AutoCAD Electrical *All the functionality of AutoCAD, plus a complete set of tools for electrical design.*	-	✓	✓
AutoCAD Architecture *Architectural drafting and documentation facilitates collaboration for factory design.*	-	-	✓
Factory Design Utilities *Provides the tools to plan and design the factory layout and improve production performance.*	-	-	✓
Navisworks Manage *Coordinate entire projects in one interface for simulation and review among team members and stakeholders.*	-	✓	✓
ReCap Pro *Convert reality capture into a 3D model or 2D drawing that is utilized in the design process.*	-	✓	✓
3ds Max *Produce professional-quality 3D animations, renderings, and models.*	-	✓	✓
Vault Basic *Organize design data, manage documentation, track revisions, and other development processes.*	✓	✓	✓

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Product design & engineering	Inventor Professional	Product Design Suite	Collection
3D mechanical design *Professional-grade 3D mechanical design, documentation, and product simulation tools.*	✓	✓	✓
Design automation & product configuration *Design standard components quickly and set up and deploy complex product configurations.*	✓	✓	✓
Flexible modeling tools *Use the appropriate modeling strategy for every job with parametric, freeform, and direct modeling tools.*	✓	✓	✓
Shape generation *Provides the optimal location of solid geometry based on applied loads.*	✓	✓	✓
AnyCAD *Work with data from major 3D CAD systems and maintain an associative link.*	✓	✓	✓
Model-based defintion *Use 3D annotations to add tolerance dimensions, notes, and other engineering details to the 3D model.*	✓	✓	✓
Electrical controls system design *Link Inventor and AutoCAD Electrical data for better collaboration between mechanical and electrical design.*	-	✓	✓
Native DWG documentation *Compatible DWG technology for AutoCAD, Inventor, and Revit.*	✓	✓	✓

Simulation	Inventor Professional	Product Design Suite	Collection
Linear static stress *Virtually test parts and assemblies for high concentrations of stress and deflection.*	✓	✓	✓
Natural frequency (modal) *Determine the mode shapes and frequency levels of the design.*	✓	✓	✓
Dynamic simulation *Simulate and analyze the dynamic characteristics of an assembly in motion under various load conditions.*	✓	✓	✓
Autodesk Nastran solver *Gain FEA results from a trusted and accurate analysis solver.*	-	-	✓
Nonlinear structural analysis *Improved accuracy for large deflections, contact, and additional material models such as plastics and rubber.*	-	-	✓
Fatigue *Predict the life and durability of the design as cracks begin to form due to repetive loading conditions.*	-	-	✓
Heat-transfer *Examine the temperature of components by analyzing conduction, convection, and radiation.*	-	-	✓
Frequency response *Determine the structural harmonic response based on frequency-dependent loads.*	-	-	✓

CAM	Inventor Professional	Product Design Suite	Collection
3-axis milling and 3+2 positioning *Choose from several 3-axis styles, and perform 3+2 axis positioning with the same CAM strategies..*	-	-	✓
Traditional turning and advanced mill/turn *Improve productivity with traditional turning, facing, grooving, and boring functions.*	-	-	✓
5-axis and multiaxis operations *Simultaneous 4- and 5-axis features for machining complex models.*	-	-	✓

Factory planning & design	Inventor Professional	Product Design Suite	Collection
2D & 3D factory layout *Plan and validate factory layouts for efficient equipment placement to improve production performance.*	-	-	✓
Process optimization *Simulate manufacturing processes early before spending time in layout.*	-	-	✓
Reality capture *Convert reality capture into a 3D model or 2D drawing that is utilized in the design process.*	-	-	✓
Collision detection *Detect equipment collisions prior to installation and commissioning.*	-	-	✓
Design review & visual walkthrough *Coordinate entire projects in one interface for simulation and review among team members and stakeholders.*	-	-	✓
Factory Asset Warehouse *Access to a shared cloud-based library containing thousands of standard and name brand equipment.*	-	-	✓

Data management	Inventor Professional	Product Design Suite	Collection
CAD integrated data management *Experience the benefits of data management in the familiar CAD design environment.*	✓	✓	✓
Advanced search tools *Utilize part and assembly property information for single or combined search criteria.*	✓	✓	✓
Design reuse *Configure existing design files to replace, reuse, or copy for use in new design projects.*	✓	✓	✓
File check-in and check-out *Enable design teams to effectively work together on the same project.*	✓	✓	✓